Idaho Currents

Former Idaho Broadcaster Assumes IDWR Information Officer Post

Michael Keckler, left, public information officer, is welcomed to the Idaho Department of Water Resources by the agency's director, Karl Dreher. *(Photo by Diane Holt)*

Michael Keckler, a long time Idaho television reporter, is the Idaho Department of Water Resource's new public information officer.

Keckler comes to the department from Idaho Fish and Game, where he has worked part time since early June. He succeeds Dick Larsen who is retiring after 12 years as the department's official spokesman.

Keckler holds a BA in mass communications from Idaho State University, Pocatello. He ended a 23-year broadcasting career last spring, which included television stations in Pocatello, Spokane and Boise.

Keckler is a recipient of two national investigative reporting awards, the Alfred I. duPont Award from Columbia University and the Edward R. Murrow Award from the Radio Television News Directors Association.

He is also a three-time Emmy Award winner who has been recognized by the Idaho Press Club and the Idaho State Broadcasters Association

First information officer

Larsen began working here as IDWR's first department-wide Public Information Officer* in September 1992. He is responsible for establishing the first IDWR website that enabled the public to read press releases, water laws and policies, and other water- and energy-related issues.

He is highly regarded as a champion of biodiesel and B20, as well as solar and wind energy. In addition, he spent numerous hours explaining water law, the adjudication process and the drought situation to the media as well as water rights owners. His rapport with the news media and his knowledge about water and energy gave him credibility as the department's spokesperson.

An Idaho native from Cambridge, Larsen served in the U.S. Air Force during the Vietnam era as a military combat newsman and military historian. Prior to coming to IDWR he was news director at KBCI TV Channel 2 in Boise for six years.

**Editor's note: Gerald Grimmett served as PIO for Adjudication from about 1987-1991.*

First GM Hybrid Transit Buses Go To Work in Seattle

Passengers Cars with hybrid gas-electric drive systems have been generating a tremendous amount of publicity lately, due to the technology's fuel savings and reduced emissions.

Sales of hybrid passenger vehicles remain strong, with demand still growing. Amid this increasing interest comes a new product from General Motors that will put hybrid technology beneath even more people: hybrid transit buses.

As part of its wide range of fuel-efficient advanced technologies, General Motors has developed a commercial parallel hybrid system that combines a diesel engine with electric motors to power transit buses.

On May 27th at Seahawks Stadium in Seattle, GM officially delivered the first of 235 hybrid buses – the largest order to date – to Metro Transit of King County, Washington. Metro Transit ordered 213 hybrid buses and Sound Transit Regional Express ordered 22 more.

The first buses were put into service on June 5th, with all 235 buses destined for King County expected to be in service by the end of the year. In total, GM hopes to have more than 270 of its hybrid buses in service in 10 different U.S. cities by the end of 2004.

Improved fuel economy, lower emissions

The hybrid buses delivered to King County are 60-foot-long articulated units assembled by New Flyer of Winnipeg, powered by the Allison Electric Drive system utilizing technology developed by GM's Powertrain division.

The hybrid system combines an 8.9-liter Caterpillar diesel engine with two 100 kW electric motors, and can deliver up to 60 percent better fuel economy than a traditional diesel bus. The GM hybrid buses produce much lower hydrocarbon and carbon monoxide emissions than conventional diesel-powered buses.

In addition, particulate emissions (tiny pieces of soot and dust) are lowered by 90 percent and nitrogen oxide (NOX) emissions are lowered by up to 50 percent.

The 235 hybrid buses that will operate in the Seattle area are expected to save 750,000 gallons of fuel per year over the buses they will replace. Over the 12-year

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The first General Motors hybrid transit buses are already operating in the Seattle area, with a total of 235 planned for that city by the end of 2004. The hybrid buses operate much quieter, about equivalent to a regular passenger car. Particulate emissions are lowered by 90 percent, and nitrogen oxide emissions are lowered by up to 50 percent.

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life cycle of the vehicles, the total savings is expected to be 8 million gallons of fuel.

If America's nine-largest cities replaced their transit fleets – totaling 13,000 buses – with GM's hybrid buses, GM states the cities would save 40 million gallons of fuel each year – a greater savings than 500,000 small hybrid vehicles.

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Mike Meredith
MSN Autos

"This bus employs the most efficient hybrid architecture available in the world today, and is the first step in a larger GM initiative," said Tom Stephens, group vice president of GM Powertrain.

"You get low emissions, great fuel economy, smooth and quiet operation, but one other thing is acceleration," he continued. "You look at 60-foot buses like this and you know how slow they typically are, but with this system the buses are 50 percent faster for acceleration than a conventional bus, so all in all it's just a tremendous balance of values for the consumers."

Another advantage of hybrid technology is a regenerative braking, which captures and stores braking energy. "When you get into a hybrid system like this … every time you brake to a stop you convert that braking energy into electricity and store it in the battery, so the next time you accelerate you can use that braking energy to accelerate the bus," explained Stephens.

Lower maintenance, quiet operation

In addition to the fuel savings and emissions improvement, the GM Hybrid Transit Bus has operational sound levels equivalent to passenger cars. Metro Transit also expects the new buses will result in significant savings in maintenance costs.

Jim Boon, vehicle maintenance manager for Metro Transit Division of King County, told MSN Autos that they have not made any operational compromises nor any changes to the infrastructure to accommodate the new hybrid buses.

"This bus just walks on and goes to work," said Boon, who expects to be able to extend oil-change intervals in the hybrid units, saving up to 32,000 quarts of oil per year, plus labor and disposal costs.

"The sound level of this bus in hush mode is about equivalent to a regular passenger car," said Stephens.

In a conventional bus, when you go to drive away you hear the diesel engine rev up and you get the noise and vibration, then you feel a strong jerk when it shifts into second gear.

"This bus is totally different," explained Stephens. When you go to drive away you hear next to nothing. The electric drive system augments the torque required to drive away and helps the diesel engine so you get a nice, smooth, quiet drive away and there are no shifts whatsoever; it is totally smooth, more like light-rail transportation as opposed to what you conventionally think of with bus transportation."

"These buses are incredibly significant for us," explained King County Executive Ron Sims. "We wanted a 21st century bus with lower operation and maintenance costs that wouldn't be dependent solely on petroleum-based products. We wanted a bus that would literally improve air quality in a very significant way, and we wanted a bus that is a complete technology.

"The public wants clean air and the public transportation is a key component of that," Sims concluded.

Editor's note: This article, written by Mike Meredith, MSN, photos by Bruce Whitaker, was published electronically in MSN Autos, and was used with permission by the author and photographer.

The GM hybrid buses for the Puget Sound region are expected to save 750,000 gallons of fuel each year and up to 32,000 quarts of oil per year, plus labor and disposal costs.

UI Sees Changes at Engineering Department

Charles L. (Chuck) Peterson

Charles L. (Chuck) Peterson, former chair of the Biological and Agricultural Engineering Department at the University of Idaho, has been named interim dean of engineering.

Peterson, a pioneer in biodiesel fuels research, has been a long-time partner with the Energy Division and its alternative fuels programs. His biodiesel collaborators include Yellowstone National Park and the Truck-in-the-Park project.

Other biodiesel projects include the J.R. Simplot Co. running one of its Kenworth trucks over 200,000miles on a 50 percent biodiesel blend and Albertson's Inc. running a blend of used deli fryer oil to power one of its transport refrigerator units.

Peterson joined the UI faculty in 1963 as a faculty member in the BAE department. His biodiesel research began in 1979 when he walked into a local grocery store and purchased a bottle of sunflower oil.

The oil was used to run an agricultural tractor owned by the university. A switch to safflower oil and 100 hours operation ruined the tractor engine, but launched the biodiesel research program.

Jon Van Gerpen

Peterson is the recipient of one of 12 Idaho Innovator of the Year awards from the Idaho Business Review for his work on biodiesel.

Jon Van Gerpen has been appointed professor and department head of the Department of Biological and Agricultural Engineering at the University of Idaho in Moscow. He succeeds Charles Peterson, who has been named interim dean in engineering.

Van Gerpen comes from Iowa State University where he was associate chair for research and budget and interim chair of the Department of Mechanical Engineering. His research expertise is in internal combustion engines, alternative fuels and the formation of pollutants.

"Van Gerpen's industry, academic and research experiences in combustion, biofuels and pollution prevention are a good fit the university's programs and research focus," says UI Provost Brian Pitcher.

UI's BAE department is recognized worldwide as a pioneer in the biodiesel research industry. The department is a member of the Colleges of Agriculture and Life Sciences and Engineering, and has faculty in Moscow, Idaho Falls, Twin Falls, Kimberly, Aberdeen and Boise.

ATTENTION READERS!!!

THE IDAHO DEPARTMENT OF WATER RESOURCES, INCLUDING THE ENERGY DIVISION, IS MOVING TO A NEW LOCATION IN OCTOBER. SUBSEQUENT ISSUES OF *IDAHO CURRENTS* WILL DISCUSS THE ENERGY-RELATED CONCEPTS INCORPORATED INTO THE NEW BUILDING.

Drought Declarations Increase in 2004

So far in 2004, the Idaho Department of Water Resources has issued 22 Drought Emergency Declarations that have been approved by Idaho Governor, Dirk Kempthorne. This compares to 19 declarations in 2003 and 17 in 2002.

Drought emergency declarations, issued by IDWR and approved by the Idaho governor, apply only to the administrative processing of water right applications. They do not apply to issues such as financial or disaster support.

Water right changes made under the provisions of emergency drought declarations expire at the end of the current year unless extended or terminated by the IDWR director.

Drought declarations have been issued in the following counties:

Cassia	July 27
Jerome	July 27
Franklin	July 20
Elmore	July 9
Twin Falls	July 2
Teton	June 17
Bingham	May 26
Jefferson	May 25
Oneida	May 25
Bannock	May 20
Bonneville	May 20
Madison	May 20
Power	May 20
Blaine	May 13
Gooding	May 13
Custer	May 5
Lemhi	May 5
Fremont	May 4
Caribou	April 27
Lincoln	April 19
Butte	April 14
Clark	April 14

NEEA Seeks Nominees for BetterBricks Awards

Developers, architects and engineers in Idaho take note: BetterBricks is seeking candidates for its first awards program in Idaho.

BetterBricks is an initiative of the non-profit Northwest Energy Efficiency Alliance (NEEA) and is supported by local utility companies. This free service connects building professionals with the information, tools, training and consultations needed to design and construct buildings that are better for business, people and the environment.

Award entrants will be judged on their demonstrated excellence in a variety of criteria, including their ability to use sustainable, low environmental-impact materials; produce substantial energy savings; incorporate daylighting with electrical lighting; reduce operating/maintenance costs; enhance productivity; consider local climate; support early design team decision-making; and support building commissioning.

Nominations are due by Sept. 17, and winners will be announced in a Nov. 12 special publication of The Idaho Business Review, the media sponsor of the program.

The awards will honor the efforts of those people working in the commercial building industry who have best championed sustainable, high performance building practices.

The awards will recognize outstanding efforts in the following fields:

- **Architecture** – commercial building architect or designer;
- **Engineering** – consulting or designing engineer;
- **Development** – developer, owner or contractor;
- **Professional Services** – landscape architect, interior designer, commissioning agent, green building consultant, suppliers or other services; and
- **Advocate** – leadership in the fields of business, government and non-profit.

Entry forms are available at www.betterbricks.com. For questions, contact Vanessa Skillern at vanessa@coateskokes.com or (503) 241-1124. More information about BetterBricks can be found at www.betterbricks.com or by calling 1-888-216-5357.